

## Notice of Allowability

### Application No.

10/004,354

### Examiner

Patrick J Connolly

### Applicant(s)

NODA, MASAAKI

### Art Unit

2877

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 16 December 2003.
2. ☒ The allowed claim(s) is/are 1-43.
3. ☒ The drawings filed on 31 October 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☒ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
  - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).**

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |   |   |
|---|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)          |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____             |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No. _____  | 7 <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
|   | 9 <input type="checkbox"/> Other  |

## **DETAILED ACTION**

### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on November 1, 2000. It is noted, however, that applicant has not filed a certified copy of the 2000-334108 application as required by 35 U.S.C. 119(b).

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on October 22, 2001. It is noted, however, that applicant has not filed a certified copy of the 2001-323731 application as required by 35 U.S.C. 119(b).

### ***Allowable Subject Matter***

Claims 1-43 allowed.

The following is an examiner's statement of reasons for allowance:

As to claim 1, the prior art of record, taken alone or in combination, fails to disclose or render obvious a gap measuring method including: taking an images of an interference fringe corresponding to a stepped shifted wavelengths at a plurality of points, obtaining a change in the intensity of the images and determining the gap value based on the obtained changes in the intensity, in combination with the rest of the limitations of claim 1.

As to claim 11, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a variable wavelength light source; an image memory for storing interference images over a range of shifted wavelengths; and means for determining gap values of a plurality of points based on changes in the intensity of the interference images, in combination with the rest of the limitations of claim 11.

As to claim 12, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a filter for shifting the wavelength of a white light source; an image memory for storing interference images over a range of wavelengths; and means for determining gap values of a plurality of points based on changes in the intensity of the interference images, in combination with the rest of the limitations of claim 12.

As to claim 13, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a variable wavelength light source; optical means for directing light from said source to a measured object with a gap; an image memory for storing interference images over a range of shifted wavelengths; and means for determining gap values of a plurality of points based on changes in the intensity of the interference images, in combination with the rest of the limitations of claim 13.

As to claim 14, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a filter for shifting the wavelength of a white light source; optical means for directing light from said source to a measured object with a gap; an image memory for storing interference images over a range of wavelengths; and means for determining gap values of a plurality of points based on changes in the intensity of the interference images, in combination with the rest of the limitations of claim 14.

As to claim 18, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a variable wavelength light source; an image memory for storing interference images over a range of shifted wavelengths; means for determining gap values of a plurality of points based on changes in the intensity of the interference images; and gap-value-to-shape conversion means, in combination with the rest of the limitations of claim 18.

As to claim 19, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a filter for shifting the wavelength of a white light source; an image memory for storing interference images over a range of wavelengths; means for determining gap values of a plurality of points based on changes in the intensity of the interference images; and gap-value-to-shape conversion means, in combination with the rest of the limitations of claim 19.

As to claim 20, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a variable wavelength light source; optical means for directing light from said source to a measured object with a gap; an image memory for storing interference images over a range of shifted wavelengths; means for determining gap values of a plurality of points based on changes in the intensity of the interference images; and gap-value-to-shape conversion means, in combination with the rest of the limitations of claim 20.

As to claim 21, the prior art of record, fails to disclose or render obvious a gap measuring apparatus including: a filter for shifting the wavelength of a white light source; optical means for directing light from said source to a measured object with a gap; an image memory for storing interference images over a range of wavelengths; means for determining gap values of a plurality of points based on changes in the intensity of the interference images; and gap-value-to-shape conversion means, in combination with the rest of the limitations of claim 21.

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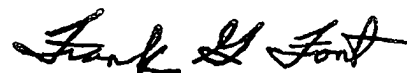
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Connolly whose telephone number is 703.305.4397. The examiner can normally be reached on 9 am-5.30 pm ... Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 703.308.4881. The fax phone number for the organization where this application or proceeding is assigned is 703.872.9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.0956.

pjc:K



Frank G. Font  
Supervisory Patent Examiner  
Art Unit 2877